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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/612,360 | 07/01/2003 | Ned W. Holmes | Holmes.N-01 | 5433 |

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GENE SCOTT; PATENT LAW & VENTURE GROUP
3140 RED HILL AVENUE
SUITE 150
COSTA MESA, CA 92626-3440

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| EXAMINER |
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ADDIE, RAYMOND W

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| ART UNIT | PAPER NUMBER |
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3671

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,360

Applicant(s)

HOLMES, NED W.

Examiner

Raymond W. Addie

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/1/2003.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1, 3 are objected to because of the following informalities:

The phrase "such as placed and/or poured, uncured concrete" should be --, concrete, which may be--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quenzi et al. # 4,930,935 in view of Christie # 5,599,098.

Quenzi et al., as cited by the Applicant and incorporated by reference, discloses a screed assembly apparatus (450) comprising:

A screed frame (552, 554, 556, 514).

A striker (466).

A rotatable auger (456) rotated by a hydraulic motor (463).

Motive power means (46) engaged for rotating the auger.

Wherein the striker is spaced to one side of the auger and parallel to said auger; and further wherein said auger is mounted to said frame via an auger mounting means (460). See col. 14, ln. 45-col. 15, ln. 30.

What Quenzi et al. does not disclose is the use of a dual flight auger. However, Christie discloses an extruder screw/auger (10) having a plurality of flighting (12, 18, 20) also known as a multi-flight auger. Which is known to improve the uniformity of the material being mixed by the auger flights. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the screed apparatus of Quenzi et al., with a multi-flight auger, as taught by Christie, in order to improve the uniform consistency of the material being mixed. See Christie col. 1, lns. 16-32; col. 2, ln. 53-col. 3, ln. 29

In regards to Claim 3 Quenzi et al. discloses a method for screeding uncured concrete comprising the steps of:

Mounting a striker (466) and a rotatable auger (456) in parallel on a screed frame (450).

Positioning the striker (466) spaced to one side of the auger.

Positioning the auger partially immersed in the uncured concrete.

Rotating the auger for removal of excess concrete while drawing the auger and striker in a lateral direction.

What Quenzi et al. does not disclose is the use of a dual flight auger. However, Christie teaches that multi-flight augers provide a more consistent and uniform mix of concrete than single flight augers. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the method of screeding concrete, of Quenzi et al., with the method step of providing a multi-flight auger as taught by Christie, in order to form a consistently uniform mix of concrete.

See Quenzi et al., Col. 20, ln. 50-col. 21, ln. 62 ; Christie col. 3, lns. 10-30.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmerman # 4,601,629 in view of Christie # 5,599,098.

Zimmerman discloses a screeding auger (266) comprising:

A cylindrical body (268) having a continuous flighting (270) spiraling between the ends of the tube (268).

A pair of end blocks (304) fixed in ends of the cylindrical body. Wherein the end blocks (304) are provided with longitudinally extensive opposing rods (274), which have means (298) for keyed engagement. See col. 11.

What Zimmerman does not disclose is the use of a dual flight auger. However, Christie teaches that multi-flight augers provide a more consistent and uniform mix of concrete than single flight augers.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the screeding device of Quenzi et al., with the a multi-flight auger as taught by Christie, in order to form a consistently uniform mix of concrete. See Christie col. 3, Ins. 10-30.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quenzi et al., '935 in view of Christie '098, as applied to claim 3 above, and further in view of Zimmerman # 4,601,629.

Quenzi et al. in view of Christie disclose a method for screeding concrete comprising the steps of providing a screeding device with a striker, and a multi-flight auger, wherein the striker and auger are partially submerged in the concrete to be screeded. What Quenzi et al. in view of Christie do not disclose is how the auger is mounted to the motor. However, Zimmerman teaches it is desirable to: Fix a screeding auger with a pair of end blocks (304). Extending opposing rods (274) from the end blocks (304) in a longitudinal direction. Engaging keyed apertures (298) in the opposing rods with a motive means (46) such as a hydraulic motor. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the method of screeding of Quenzi et al. in view of Christie, with the method steps of fixing an auger to a hydraulic motor, as taught by Zimmerman, in order to rotate a screeding auger in a desired direction and speed. See Zimmerman col. 10, ln. 24-col. 11, ln. 64.


Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Christiano et al. # 6,139,179 discloses an extruder screw having multi-flights. Miller # 4,830,533 discloses an asphalt patching device having a dual-flight auger. Bobrowski # 5,094,334 discloses a mechanically driven auger system. Plemons et al. # 5,980,153 discloses a telescoping auger shaft. Kim # 3,867,079 discloses a multi-flight auger.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Addie whose telephone number is (703) 305-0135. The examiner can normally be reached on Monday-Friday from 7:00 am to 2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached on (703) 308-3870. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.


Thomas B. Will
Supervisory Patent Examiner
Group 3600

RWA
2/23/2004